

PATENT

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated in the following listing of all claims:

1. – 4. (Canceled)

5. (Currently Amended) A method of detecting user activity of a computer, the method comprising:

- taking a temperature reading in connection with the computer;
- determining a desired operating temperature for the computer;
- comparing the temperature reading and the desired operating temperature to determine a temperature difference of the temperature reading from the desired operating temperature;
- determining a user activity indication based on the temperature difference; and
- adjusting a clock signal frequency applied to a processor within the computer as a function of the temperature difference of the temperature reading from the desired operating temperature,

~~The method of claim 4,~~ wherein the clock signal frequency is increased when the temperature difference is positive.

6. – 13 (Canceled)

14. (Previously Presented) A method for use with a computer having a processor, the method comprising:

- taking a temperature reading in connection with the computer;
- determining a desired operating temperature for the computer;
- comparing the temperature reading and the desired operating temperature to determine a temperature difference; and
- increasing a performance state of the processor when the temperature difference of the temperature reading from the desired operating temperature is positive.

15. (Previously Presented) A system comprising:

## PATENT

a processor device having a clock input to receive a clock signal;  
a temperature measurement device responsive to the processor device, the temperature measurement device configured to take a temperature measurement for the processor; and  
control logic responsive to the temperature measurement device, the control logic to compare the temperature measurement to a desired operating temperature to determine a temperature difference of the temperature reading from the desired operating temperature; and  
wherein the clock signal applied to the clock input has a frequency that is increased when the temperature difference is positive.

16. (Original) The system of claim 15, wherein the processor device further comprises a voltage input and wherein the voltage applied to the voltage input is increased when the temperature difference is positive.

17. (Original) The system of claim 15, wherein the frequency of the clock signal is decreased when the temperature difference is negative.

18. (Original) The system of claim 16, wherein the voltage applied to the voltage input is decreased when the temperature difference is negative.

19. (Original) The system of claim 16, further comprising a lookup table containing a plurality of desired operating temperatures for the processor, each of the desired operating temperatures based on different operating characteristics associated with the processor.

20. (Original) The system of claim 19, wherein the operating characteristics include clock frequency and voltage applied to the processor.

21. (Previously Presented) A computing system comprising:  
a processor device having a clock input to receive a clock signal;  
an operating system that allows a user to select between a manual clock speed mode of operation and an automatic temperature-based mode of operation;

## PATENT

a temperature measurement device responsive to the processor device, the temperature measurement device configured to take a temperature measurement for the processor device;

control logic responsive to the temperature measurement device, the control logic to compare the temperature measurement with a desired operating temperature to determine a temperature difference; and

wherein when the computing system is in the manual clock speed mode of operation, the clock signal applied to the clock input has a substantially constant frequency and when the computing system is in the automatic temperature-based mode of operation, the clock signal applied to the clock input has a frequency that is adjusted based on the temperature difference of the temperature reading from the desired operating temperature.

22. (Original) The computer system of claim 21, wherein the temperature measurement device takes a plurality of temperature measures and the temperature measurement is determined by taking an average of the plurality of temperature measurements.

23. (Original) The computer system of claim 21, wherein the predetermined desired operating temperature is read from a look-up table.

24. (Original) The computer system of claim 21, wherein the desired operating temperature is computed based on a plurality of factors, the plurality of factors including the current frequency, voltage, and temperature of the processor device.

25. (Currently Amended) The computer system of claim 24, wherein the desired operating temperature ~~point~~ is modified based on environmental variations affecting the processor device.

26. (Currently Amended) A method comprising:  
determining user activity for one or more processors, wherein the determining is based, at least in part, on a measured temperature that corresponds to the processors; and

## PATENT

increasing performance adjusting performance of at least one of the one or more processors if the determined user activity increases or is high in accordance with the determined user activity,  
wherein the user activity has increased or is high if the measured temperature exceeds the desired operation temperature, and the user activity has decreased or is low if the measured temperature is less than the desired operation temperature.

27. – 33. (Canceled)

34. (Previously Presented) An apparatus comprising:  
a set of one or more processors;  
a temperature sensor operable to measure temperature corresponding to the set of processors;  
a store unit operable to store desired operating temperatures; and  
means for increasing performance of the set of processors if a temperature measured by the temperature sensor exceeds a desired operating temperature stored in the store unit.

35. (Previously Presented) The apparatus of claim 33 further comprising means for periodically activating the temperature sensor to measure temperature.